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Monthly Statistical Report

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SUMMARY

The combined year-to-year drop in domestic production of crude oil and natural gas liquids exceeded 1 million B/D in February, one of the largest declines ever recorded. Thus, despite indications that the underlying growth rate in demand has moderated so far in 1987 from the accelerated growth of the last half of last year, February's imports still rose 1.4 million B/D or 30 percent, mainly because of substantially lower domestic supplies and somewhat higher demand.

Crude oil production alone fell over 900 thousand B/D from last February, with the nearly 10 percent decline occurring mostly in the lower 48 states. Natural gas liquids production is estimated to have dropped close to 200 thousand B/D over the same period.

With a weather-related decline for distillate deliveries, an only-minimal change for residual fuel oil, and a below-trend increase for kerosine jet fuel, gasoline deliveries' 3.1 percent increase was one of the few major contributors to February's 1.5 percent, 243 thousand B/D increase in total deliveries. Adjusting for February's warmer weather and below-trend kerosine jet fuel deliveries yields an apparent year-to-year increase in consumption of somewhat more than 2 percent, similar to the underlying trend estimated for January but below the 3.4 percent increase of 1986's second half.

The primary reason for the moderation in total deliveries' growth is the ebbing of last year's strong gains for residual fuel oil, which had mainly been the result of fuel switching at electric utilities. Higher residual fuel oil prices in the past few months, coupled with natural gas prices that have largely remained at last year's lower levels, have made fuel substitution with oil less attractive.

Although refinery utilization dropped to below 80 percent of operable capacity for the first time in almost a year, the January-February decline was not unusual and gasoline and distillate production still showed gains over last February. Total inventories declined 17 million barrels for the month, a decrease smaller than in four of the past five years. Distillate stocks fell 16 million barrels but ended the month higher than for the previous two Februarys. Crude oil and gasoline stocks were steady.

PRODUCTS SUPPLIED[1/]

Gasoline

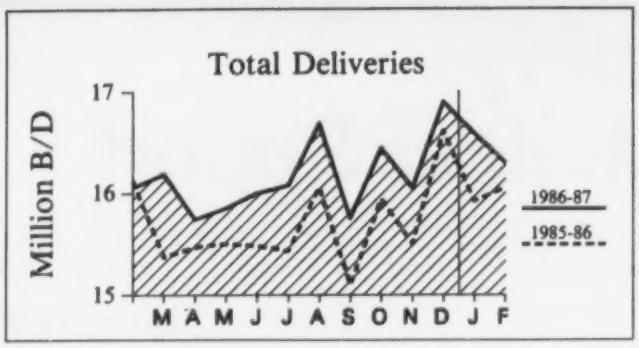
DELIVERIES' GROWTH RECOVERS SOMEWHAT. Gasoline deliveries' growth picked up in February from January's meager showing. The 3.1 percent, 198 thousand B/D rise, however, was still somewhat below the experience of last year's second half, when the increase approached 4 percent. How much of the recent slackening in the growth rate for deliveries represents an actual slowing in consumption increases remains to seen. As noted last month, recent growth in miles travelled—up 6.6 percent for December—even when offset by fuel efficiency improvements, imply gasoline consumption growth somewhat larger than recent deliveries increases.

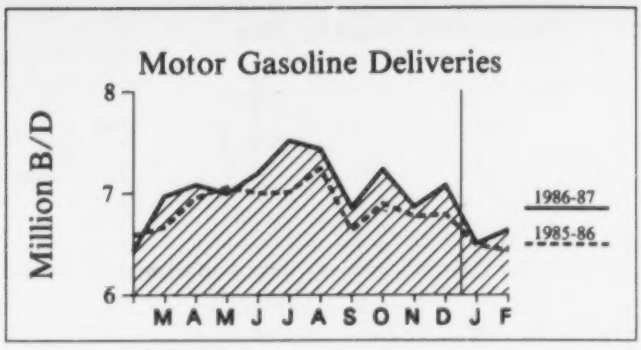
Unleaded's share of gasoline deliveries jumped to nearly 75 percent in February, up over 7 points from a year ago. Further regional introductions and market tests by some companies of mid-grade unleaded have been helping to expand unleaded's share. After this year, refiners will no longer be able to use lead rights "banked" earlier under the Environmental Protection Agency's lead phasedown program; more than half of the bank had already been used up by the end of last year's third quarter. Since unleaded regular runs about two octane numbers below leaded regular, a mid-grade product is one way to meet the octane requirements of older vehicles designed to run on regular leaded fuel.

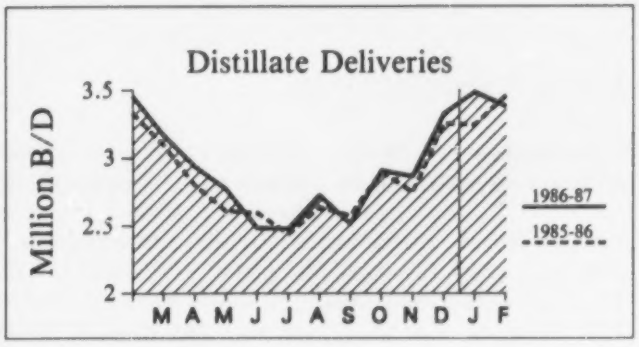
Distillates

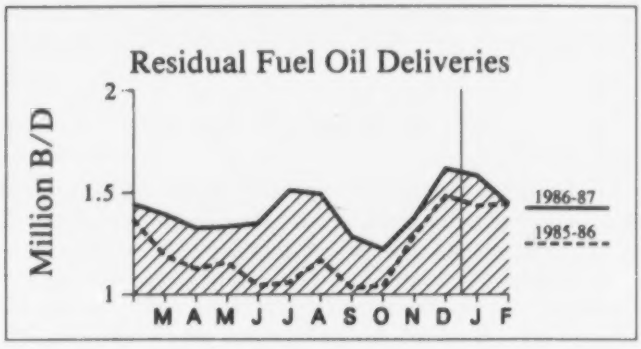
WARMER WEATHER BRINGS DECLINE. Weather about 5 percent warmer than last year and nearly 10 percent warmer than normal accounts for all of distillate fuel oil's 2.1 percent, 74 thousand B/D decline for February. Other sectors likely showed little growth. Year-to-year changes in truck tonnage, for example, have been erratic in recent months, running anywhere from 4 percent down to 5 percent up; if there is a trend, it is probably one of only moderate growth at best. Growth in rail traffic, too, has been weak.

Distillate use at electric utilities has also been flat, responding little to the past year's lower oil prices—in contrast with last year's substantial gains for residual fuel oil. While utilities' consumption of residual fuel oil in 1986 increased by more than one third (and purchases lept by roughly one half), distillate consumption was virtually unchanged. Most distillate at electric utilities is used in peaking units and petroleum use there was little affected by oil's price decline.









Residual Fuel Oil

FLAT DELIVERIES CONTRAST WITH LAST YEAR. Residual fuel oil deliveries in February were essentially unchanged from a year ago—in sharp contrast to increases of up to 43 percent experienced in the middle of last year, when residual fuel oil prices had fallen significantly compared with natural gas prices. On a seasonally adjusted basis, residual fuel oil deliveries have been trending downwards for the past six to eight months, and this February's level was not much higher than those before the 1986 oil price decline.

Residual fuel oil's shrinking gains of the past several months are the result of movements in oil and gas prices that have greatly reduced the incentive for electric utilities and others to burn residual fuel oil in place of other fuels. Specifically, despite a moderate decline during February after several months of increases, residual fuel oil prices were at levels similar to a year ago, while prices for spot natural gas were down 20 to 25 percent. For December, the latest month for which data are available, residual fuel oil burned at utilities had risen only 40 thousand B/D—one tenth of last July's increase. Thus for February, even though electricity generation rose about 2 percent year-to-year, residual fuel oil consumption by utilities probably held steady or may have even declined.

This, combined with little change for bunkering, industrial, and other uses over the past year, leads to the conclusion that all sectors of residual fuel oil deliveries contributed to February's flat performance.

Kerosine Jet Fuel

BELOW-TREND RISE FOR FEBRUARY. Experiencing one of the smallest year-to-year increases in nearly a year, kerosine jet fuel deliveries increased by only 4.3 percent or 47 thousand B/D in February. Increases in available seat miles, however, have continued in the 9 to 12 percent range and growth rates for revenue passenger miles, though fluctuating more than seat miles, have been at least 11 percent and as high as 17 percent during the past six months. Thus it appears that February's smaller deliveries increase does not signify any major change in the longer-term trend; annual deliveries last year grew nearly 10 percent over the prior year's level.

Other Oils

UP 1.7 PERCENT. Deliveries of other oils rose 1.7 percent (63 thousand B/D) in February, in line with the pattern of minimal growth of the recent past. If higher oil prices in recent months have indeed brought about a partial reversal of the shift towards heavier petrochemical feedstocks, it was not evident in the Department of Energy's December data. Gasoil and naphtha deliveries rose 55 thousand B/D year-to-year in that month, while ethane deliveries fell 138 thousand B/D.

For the year, ethane deliveries declined nearly 60 thousand B/D (10 percent) while heavier feedstocks experienced a 66 thousand B/D, 18 percent gain. For other products, deliveries of propane fell nearly 50 thousand B/D while asphalt deliveries increased 23 thousand B/D. Because of increased refinery utilization, refinery gas production and use rose nearly 30 thousand B/D.

SUPPLY[1/]

Production

CRUDE AND NGLs FALL OVER 1 MMBD. February's drop in domestic crude oil production of over 900 thousand B/D and the nearly 200 thousand B/D decline for natural gas liquids combined to reduce domestic supplies by over 1 million B/D compared with last February, one of the largest year-to-year

declines ever recorded. Alaskan production continued at levels similar to the recent past, but lower 48 production was almost a third below 1970's peak and at its lowest level since the early 1950s.

Though its rate of decline has moderated in the past several months, lower 48 production has continued downward. Production in last year's second quarter fell close to 5 percent from the first quarter—or at an annual rate of nearly 18 percent—and third quarter production fell another 4 percent. Fourth quarter 1986 and the first two months of this year show declines of about 1.6 percent from the prior quarters, or annual rates of decrease of over 6 percent. These declines contrast with essentially stable production in the lower 48 in the previous five years.

API's fourth quarter *Quarterly Completion Report* now puts the estimated decline in wells drilled last year at over 29,000—a 41 percent drop, and the largest decline in the number of wells drilled ever. Reflecting the greater relative price decline for oil versus gas, estimated oil completions fell by 46 percent while gas completions declined by a lesser but still very substantial 34 percent. Rig activity so far this year has shown no improvement over that of the latter part of 1986, and in fact has slipped somewhat since the beginning of the year.

Imports

UP 1.4 MMBD DUE TO TRENDS IN DEMAND AND PRODUCTION.

Total imports declined slightly from the levels of prior months but still exceeded those of last February by 1.4 million B/D or 30 percent. Though last February's imports were somewhat below trend, most of this year's increase is the result of the enlarged gap between domestic supplies and demand brought about by last year's oil price collapse. The greater than 1 million B/D decline in domestic crude oil and natural gas liquids production, even combined with the relatively small increase in February's deliveries, amounts to 1.3 million B/D—nearly all of the month's increase in imports.

Product imports rose nearly half a million B/D this February over the same month last year, but the increase was essentially the result of last February's below-trend level rather than an unusual surge this year. Imports of gasoline and components, however, at 293 thousand B/D, were off 100 thousand B/D; distillate imports rose 132 thousand B/D. Despite the marginal performance of residual fuel oil deliveries, imports rose in February, though by less than 60 thousand B/D.

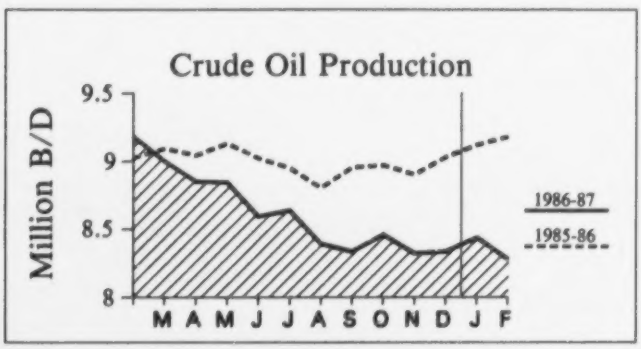
With data for the full year now available on imports by source, several interesting observations emerge. Almost 85 percent of the increase in crude oil imports in 1986 came from OPEC countries, reflecting that group's status as incremental supplier to world markets, while product import patterns also underwent shifts. Products from OPEC countries rose about 170 thousand B/D, but product imports from non-OPEC sources declined by nearly 90 thousand B/D, the second annual decline in a row. As a result of these developments, OPEC's share of U.S. crude and product imports jumped 10 percentage points to nearly 46 percent, the highest in five years.

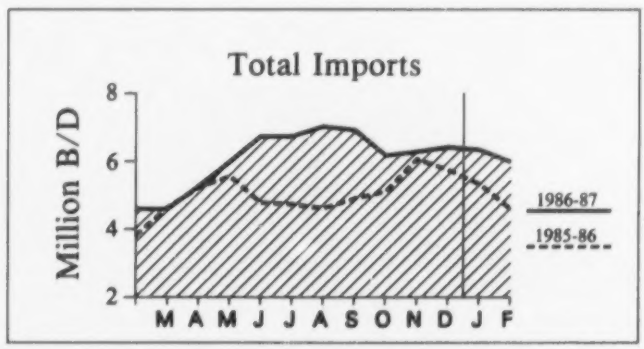
Though the bulk of Persian Gulf exports continued to go to other destinations, U.S. imports from this region nearly tripled to 900 thousand B/D in 1986. Perhaps more important is the fact that exports from the Persian Gulf now account for about a third of world oil trade, so that major developments there can potentially affect U.S. oil supplies not only directly but indirectly as well.

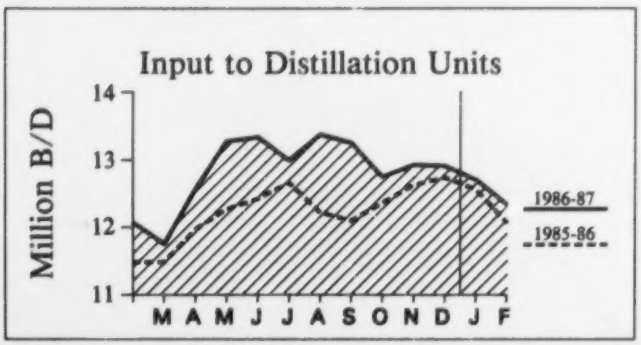
Refinery Operations

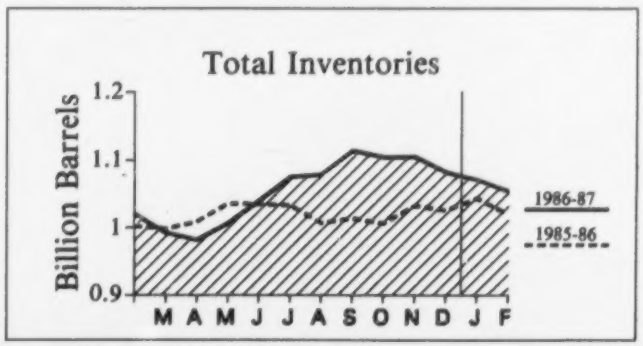
RUNS RISE OVER LAST YEAR.

Refinery utilization inched downwards as the month progressed, as some refiners









began normal seasonal maintenance and refinery turnarounds. However, though February's average refinery utilization dropped below 80 percent for the first time in nearly a year, the January-February utilization decline was not unusual compared with recent years. In fact, for the month, input to distillation units was still 2.2 percent ahead of last February.

Gasoline production rose 1.4 percent and, largely because last February's distillate production had been the lowest of the heating season, this February's production was 2.2 percent higher by comparison. Residual fuel oil output declined 2 percent in response to stagnant demand.

Inventories

STOCKS AGAIN FALL LESS THAN NORMAL. February's 17 million barrel decline in total inventories was smaller than four out of five of the previous February declines and followed January's less-than-average decrease. In terms of days of supply, however, February's stocks were towards the low end of the range of days of supply experienced in the 1980s. In that period, the ratio of total February stocks to deliveries has run from a low of 62 days in 1985 to a high of 76 in 1983. This February's 65 days, then, is not unusually high by comparison.

Distillate stocks ended the month higher than for the previous two Februarys after falling 16 million barrels. Both crude oil and gasoline inventories remained near January's month-end levels, with gasoline stocks about 8 million barrels higher than for last February.

1/ Total supply, i.e., production plus imports adjusted for net stock change is equal to total products supplied from primary storage. Total products supplied from primary storage less exports is equal to total domestic products supplied. Information contained in this report is derived from information published in the API Weekly Bulletin and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.

2/ Includes lease condensate.

3/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 517 million barrels as of February 28, 1987).

ESTIMATED UNITED STATES PETROLEUM BALANCE

(Daily Average in Thousands of 42 Gallon Barrels)

Products Supplied/Supply From Primary Storage	FEBRUARY			YEAR-TO-DATE		
	1987[1]	1986[2]	% Change	1987[3R]	1986[2]	% Change
Products Supplied:						
Total motor gasoline	6,636	6,438	3.1	6,567	6,464	1.6
Finished leaded motor gasoline*	1,679	2,096	(19.9)	1,735	2,090	(17.0)
Finished unleaded motor gasoline*	4,957	4,342	14.2	4,832	4,374	10.5
Naphtha-jet	208	183	13.7	195	193	1.0
Kerosine-jet	1,141	1,094	4.3	1,170	1,086	7.7
Distillate fuel oil	3,381	3,455	(2.1)	3,435	3,343	2.8
Residual fuel oil	1,447	1,443	0.3	1,518	1,439	5.5
All other oils[4]	3,823	3,760	1.7	3,913	3,877	0.9
Reclassified[5]	- 337	- 317	6.3	- 349	- 415	(15.9)
Total domestic products supplied	16,299	16,056	1.5	16,449	15,987	2.9
Exports	815	866	(5.9)	816	859	(5.0)
Total products supplied	17,114	16,922	1.1	17,265	16,846	2.5
Supply:						
Domestic production:						
Crude oil[6]	8,277	9,181	(9.8)	8,361	9,149	(8.6)
Natural gas liquids	1,522	1,710	(11.0)	1,555	1,716	(9.4)
Other supply[7]	720	585	23.1	663	937	(29.2)
Total domestic supply	10,519	11,476	(8.3)	10,579	11,802	(10.4)
Imports:						
Crude oil, total	3,896[10/]	2,981[10/]	30.7	4,098[10/]	3,137[10/]	30.6
Canadian	602	481	25.2	608	489	24.3
Other	3,294	2,500	31.8	3,490	2,648	31.8
Products, total	2,093	1,617	29.4	2,074	1,848	12.2
Residual fuel oil	634	577	9.9	690	605	14.0
Other	1,459	1,040	40.3	1,384	1,243	11.3
Total imports	5,989	4,598	30.3	6,172	4,985	23.8
Total supply	16,508	16,074	2.7	16,751	16,787	(0.2)
Stock change, all oils	- 606	- 848	XXXX	- 514	- 59	XXXX
Refinery Operations						
Input to crude oil distillation units	12,342	12,072	2.2	12,534	12,331	1.6
Operable capacity	15,594	15,434	1.0	15,594	15,567	0.2
Refinery utilization (%)[8]	79.1%	78.2%	1.2	80.4%	79.2%	1.5
Crude oil runs	12,151	11,921	1.9	12,340	12,159	1.5

Stocks (millions bbls.)	1987		1986[2]	% Change from ...	
	Feb. 28[9]	Jan. 31[9]	Feb. 28	Previous Month	Year Ago
Crude oil 10/	329.4	329.0r/	331.9	0.1	(0.8)
Unfinished oils	101.5	94.9	104.1	7.0	(2.5)
Total motor gasoline**	252.6	252.0r/	244.8	0.2	3.2
Finished leaded motor gasoline*	70.0	70.5	79.5	(0.7)	(11.9)
Finished unleaded motor gasoline*	139.5	140.9	127.1	(1.0)	9.8
Naphtha-jet	6.8	7.4	6.3	(8.1)	7.9
Kerosine-jet	41.1	41.9	37.8	(1.9)	8.7
Distillate fuel oil	125.2	141.0	112.8	(11.2)	11.0
Residual fuel oil	37.5	41.9	42.7	(10.5)	(12.2)
All other oils	159.8	162.8r/	141.6	(1.8)	12.9
Total all oils	1,053.9	1,070.9r/	1,022.0	(1.6)	3.1

1/ Based on API estimated data converted to a monthly basis.
2/ Source: U.S. Department of Energy.
3/ Source: API
4/ Includes crude losses.
5/ Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from total domestic products supplied.
6/ Includes lease condensate.
7/ Includes Unaccounted-for crude oil, Refinery input of other hydrocarbons, and Processing gain.
8/ Represents "Input to crude oil distillation units" as a percent of "Operable capacity."
9/ Derived by interpolating API weekly stocks data.
10/ Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
R/ Revised.
* Included in motor gasoline.
** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.